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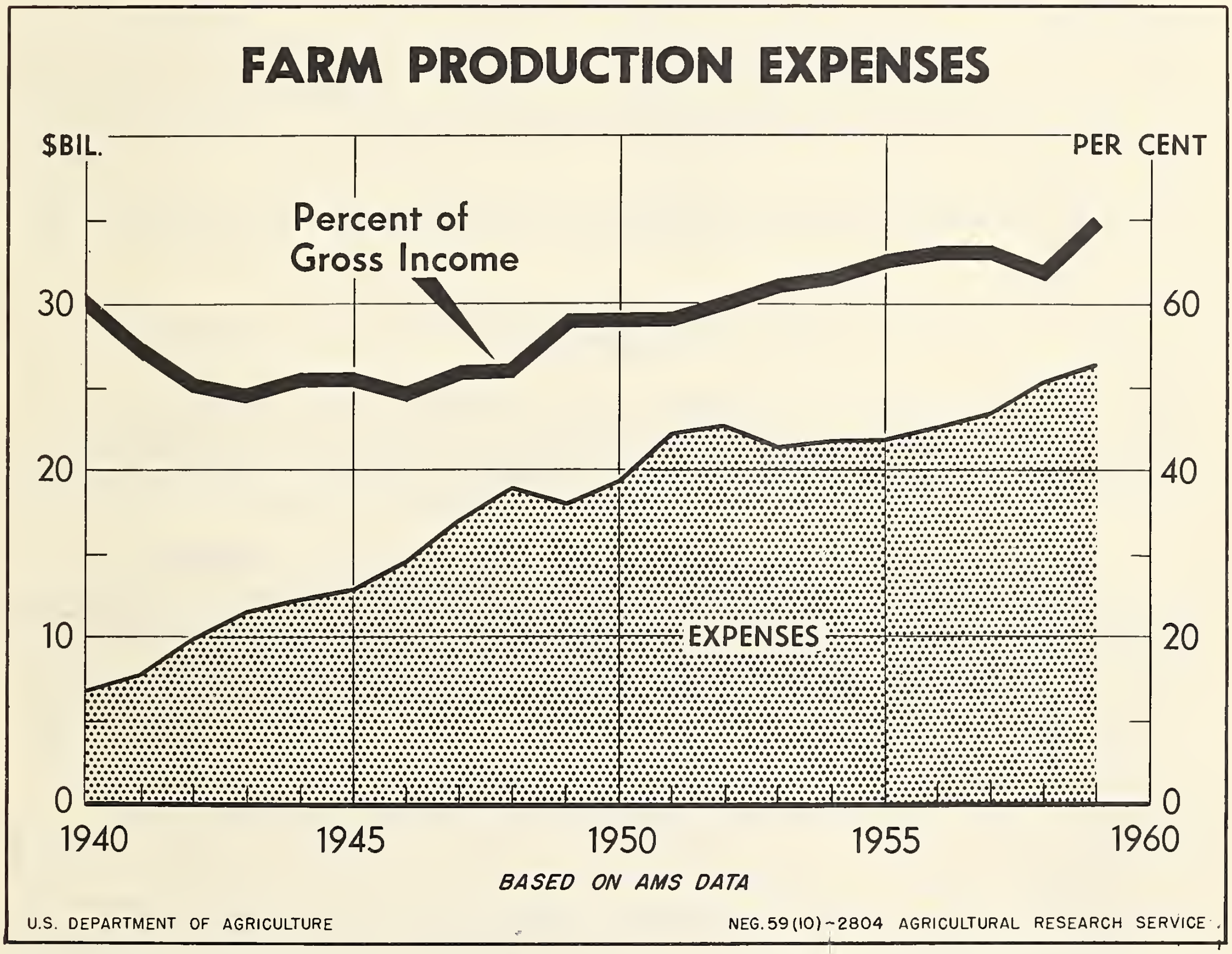
U.S. DEPARTMENT OF AGRICULTURE

1960 OUTLOOK ISSUE
FOR RELEASE NOV. 16, P.M.

THE FARM COST SITUATION

Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

ARS 43-114 (FCS-27) NOVEMBER 1959



Production expenses have risen because of expanded output and the greater quantity of goods and services obtained from nonfarm sources at higher prices. These factors, plus specialization in production, especially of livestock, and lower prices of farm products have caused higher expenditures per dollar of gross income.

Goods and services used in production: Index numbers of cost rates and prices paid by farmers, United States 1/

(1947-49=100)

Year or period	Commodities, interest, taxes, and wage rates	Commodities only	Feed	Livestock	Motor supplies	Motor vehicles	Farm machinery	Farm supplies	Building and fencing materials	Ferti-lizer	Seed	Wage rates
Average:												
1910-14	39	42	43	29	---	---	42	42	34	70	41	23
1915-19	59	63	68	44	---	---	54	70	48	101	62	34
1920-24	65	61	60	33	---	---	65	77	57	101	60	42
1925-29	65	61	58	44	94	49	64	73	54	92	60	43
1930-34	50	47	39	25	74	49	61	61	47	75	40	28
1935-39	49	52	45	36	74	56	64	60	49	71	49	28
1940	49	52	43	41	71	56	64	62	49	69	42	30
1941	53	55	47	46	74	59	65	66	53	69	40	35
1942	60	62	57	54	79	64	69	73	58	76	54	46
1943	68	69	68	61	81	67	71	82	60	81	68	61
1944	73	73	75	58	82	73	73	86	64	83	77	74
1945	77	74	74	63	82	75	74	87	66	84	79	83
1946	83	81	87	72	84	77	76	88	72	85	81	90
1947	95	95	102	90	92	90	86	95	93	93	93	97
1948	104	105	109	111	103	100	101	100	104	102	109	103
1949	101	100	89	99	105	110	113	105	103	105	98	100
1950	104	104	91	116	106	110	115	105	105	101	94	99
1951	115	115	102	141	111	118	124	112	117	106	96	109
1952	117	116	108	118	112	123	129	119	118	109	109	117
1953	111	108	98	85	114	122	130	116	118	110	99	120
1954	111	108	98	87	116	123	130	112	118	110	93	118
1955	110	106	91	85	117	122	131	110	120	109	98	120
1956	111	106	89	79	119	127	135	111	125	106	86	124
1957	114	108	87	89	124	136	142	112	129	107	89	130
1958	117	111	86	110	123	142	148	112	130	107	88	134
July	117	112	88	109	---	140	---	---	---	---	---	132
Aug.	117	111	88	105	---	---	---	---	---	---	---	---
Sept.	118	112	86	111	124	140	151	112	131	107	89	---
Oct.	118	112	85	112	---	---	---	---	---	---	---	138
Nov.	118	111	83	113	---	143	---	---	---	---	---	---
Dec.	118	112	86	110	122	144	151	112	131	---	---	---
1959												
Jan.	120	113	87	114	---	148	---	---	---	---	---	142
Feb.	119	113	87	109	---	---	---	---	---	---	84	---
Mar.	120	113	87	115	123	147	153	113	132	---	83	---
Apr.	121	114	88	118	---	---	---	112	---	106	83	144
May	120	113	87	117	---	---	---	---	---	---	84	---
June	120	113	86	113	123	145	155	111	133	---	---	---
July	120	112	86	110	---	145	---	---	---	---	---	144
Aug.	119	112	86	108	---	---	---	---	---	---	---	---
Sept.	119	112	84	107	124	144	158	111	133	106	84	---
Oct.	118	111	84	103	---	---	---	---	---	---	---	140

1/ Revised.
Agricultural Marketing Service.

THE FARM COST SITUATION

Approved by the Outlook and Situation Board, November 5, 1959

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GENERAL SITUATION

Farm production expenses totaling about $26 billion in 1959 are at a new peak for the third consecutive year; production expenses of about 68 cents per dollar of gross income are a fraction below the record high in 1932, and are likely to be higher in 1960.

Expenditures in 1960 for many major classes of production items, particularly overhead items such as taxes, interest, and depreciation charges, and items of nonfarm origin are expected to be as high or higher than they were in 1959. Expenditures for feed are expected to be about the same or slightly lower, because of lower prices, but quantities of feed bought may be the same or slightly larger. Expenditures for livestock are expected to be lower.

Prices paid for production goods and services in 1959 were higher than in 1958. For the year, they are estimated to be 2 to 3 percent higher than in 1958 and 20 percent above the 1947-49 average. Prices paid for goods and services from nonfarm sources have risen faster. They will average 34 percent above 1947-49. Since 1947-49, the largest increases in cost rates have been in prices paid for farm machinery and motor vehicles and wage rates for hired labor. Prices of building materials and motor supplies also have risen more than average. Prices of the latter, however, have not risen since 1957.

Percentage changes in cost rates and prices paid by farmers for major groups of production items this fall from a year ago were as follows:

	Percent
Livestock (Oct. 15)	-7
Seed (Sept. 15)	-6
Feed (Oct. 15)	-1
Farm supplies (Sept. 15)	-1
Fertilizer (Sept. 15)	-1
Motor supplies (Sept. 15)	0
Wage rates (Oct. 1)	+1
Building and fencing materials (Sept. 15)	+2
Motor vehicles (Sept. 15)	+3
Farm machinery (Sept. 15)	+5
Taxes (annual average)	+6
Farm real estate (July 1)	+6

Since 1947-49, annual farm production expenditures in the United States have risen about 45 percent - from nearly $18 billion in 1947-49 to about $26 billion in 1959. A little more than half of this increase resulted from higher cost rates; the rest was due to outlays for more goods and services.

The volume of purchased production inputs were about 22 percent larger in 1959 than in 1947-49. Purchases of feed and livestock represent about 70 percent of this increase. Feed purchases increased by 47 percent and purchases of livestock increased by 77 percent. Purchases of feed and livestock, however, include such services as feed mixing, transportation and commissions, and growth stimulants and antibiotics used in feeds.

Because farms are getting larger and the number of farms is declining, production expenditures per farm have risen faster than aggregate expenditures. From 1947-49 to 1959, production expenditures per farm rose 80 percent.

The increase per farm in physical assets has paralleled the increase in farm output (fig. 1). About two-fifths of the increase resulted from more land per farm. Almost a fourth of the increase in physical assets, however, consisted of new and remodeled buildings and other depreciable structures, and another fourth was additional machinery and motor vehicles.

Operation, maintenance, and replacement of these depreciable assets at sharply higher prices account for more than 40 percent of the increase in production expenditures in the last decade.

Investments and operating costs have increased substantially on all types of farms, but net incomes have not necessarily risen with more inputs. In some cases, they have declined despite greater production per unit of input. For example, on most types of sheep and cattle ranches net incomes rose more from 1947-49 to 1958 than did production per unit of input. On

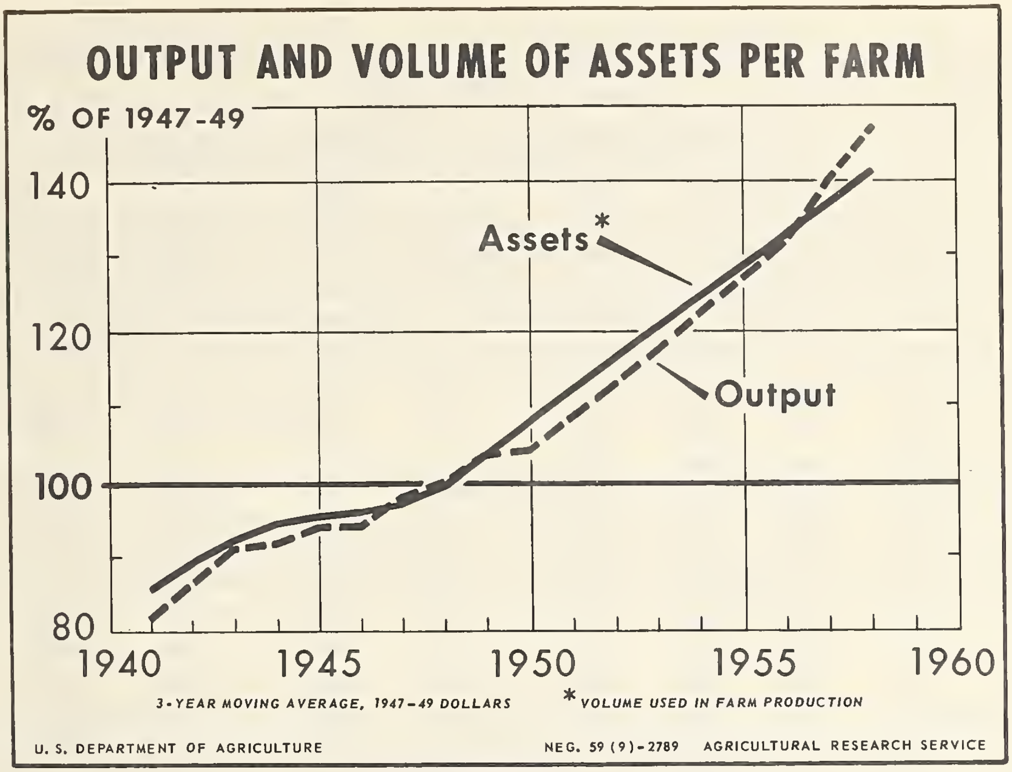


Figure 1

the other hand, production per unit of input rose faster than net income on poultry farms in New Jersey, dairy farms in Wisconsin, and hog-beef fattening farms in the Corn Belt. Favorable prices in 1958 for the products of livestock ranches and relatively unfavorable prices for products of the latter group of farms were largely responsible for the differences in net incomes. Improvements in production per unit of input on the two groups of farms were about the same.

FARM LABOR

Somewhat higher farm wage rates are expected in 1960. A continued expansion in use of labor-saving machines and methods is also anticipated, which will reduce total employment of hired workers. However, the increase in wage rates is expected to more than offset the reduction in amount of hired labor. Thus the farm wage bill probably will be higher. In addition to cash wages of about $2.6 billion in 1959, hired farmworkers received board, housing, and other perquisites worth almost a half billion dollars.

Wage rates in 1959 will average almost 6 percent higher than in 1958, but most of the increase actually came during the last half of 1958 (table 1). During the first three quarters of 1959, farm wage rates changed about in accordance with the usual seasonal pattern; the seasonally adjusted index remained fairly steady. From 142 percent of the 1947-49 average in January, the index rose to 144 in April, was the same in July, and dropped back to 140 in October.

Table 1. - Labor used on farms, output, wage rates, and related data: United States, 1940-59 1/

(Index numbers 1947-49=100)

Year	Farm employment			Man-hours of farm work	Farm output 3/	Farm output per man-hour	Net farm income plus wages per man-hour 4/	Wage rates	
	Total 2/	Family 2/	Hired					Farm workers 5/	Industrial workers 6/
1940	107	104	117	122	82	67	25	30	50
1941	104	101	116	120	85	71	36	35	55
1942	103	100	112	123	96	78	51	46	64
1943	102	101	107	121	94	78	63	61	72
1944	100	100	98	120	97	81	63	74	77
1945	98	99	93	113	95	84	71	83	77
1946	101	102	96	108	98	91	90	90	82
1947	102	102	99	103	95	92	97	97	93
1948	101	101	102	100	104	104	114	103	102
1949	97	97	99	97	101	104	89	100	105
1950	97	96	102	90	101	112	101	99	110
1951	93	92	98	91	104	114	114	109	120
1952	89	88	94	86	108	126	115	117	126
1953	87	85	91	83	109	131	106	120	133
1954	84	83	90	78	109	140	108	118	136
1955	82	80	88	76	113	149	104	120	141
1956	76	74	84	72	114	158	108	124	149
1957	74	71	83	68	114	168	116	130	156
1958	74	70	86	66	124	188	141	134	160
1959 7/	72	69	84	66	125	189	124	142	166

1/ Data on farm employment, wage rates, and farm income are from the Agricultural Marketing Service, United States Department of Agriculture.

2/ Includes farm operators and members of their families.

3/ Net calendar-year production for eventual human use.

4/ Index of net farm income plus total farm wages divided by index of total man-hours of farmwork.

5/ Simple average of seasonally adjusted quarterly indexes.

6/ Average hourly earnings of production workers in manufacturing. 1959 figure is average for first 9 months.

7/ Preliminary. Estimates of farm output and man-hours based on September 1959 "Crop Production" report and other releases of the Agricultural Estimates Division, Agricultural Marketing Service.

In the Nation as a whole, the composite hourly farm wage rates are at a seasonal high in mid-winter chiefly because of a decrease in employment of lower-paid seasonal workers (fig. 2). Last winter, the composite hourly wage rate was 86 1/2 cents per hour which was a record high rate. The previous winter it was a little more than 80 cents per hour.

Competition from nonfarm employers will continue to exert an upward pressure on farm wage rates. Hourly earnings of production workers in manufacturing averaged $2.13 per hour in 1958; they averaged $2.21 per hour during the first 9 months of 1959. Wages in manufacturing are more than 2 1/2 times as high as those paid on farms, and the spread is widening. Wages in manufacturing in 1959 are two-thirds higher than in 1947-49, but farm wages are only about two-fifths higher.

Returns per hour to all farm labor were considerably lower in 1959 than in 1958. Even so, they were still higher than in any year prior to 1958. High returns in 1958 resulted primarily from the high farm output and the relatively high prices received for farm products. If the decrease in net farm income continues, it will tend to offset the influence of higher nonfarm wage rates on farm rates.

Piece rates, the basis on which many hired farmworkers are paid, have lagged behind the rise in time rates, such as those per day or per hour. Apparently, piece rates have not increased significantly this year. In the fall of 1958, the rate for cotton picking up to November 1 averaged $2.65 per

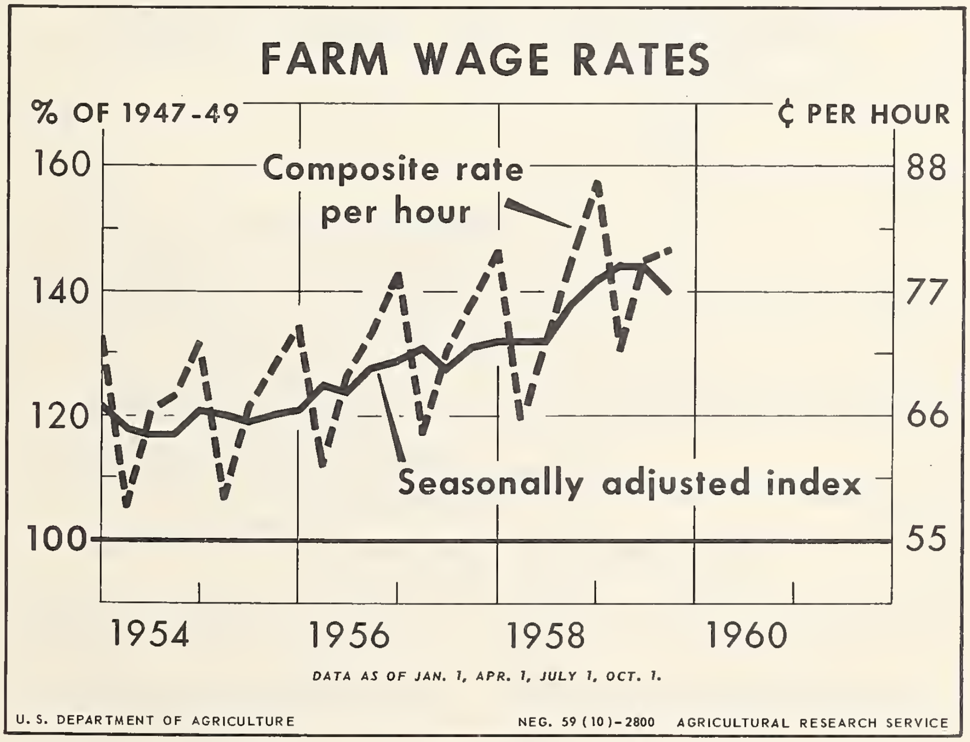


Figure 2

100 pounds of seed cotton, virtually the same as it had been for more than a decade. With current high yields, however, the improvement in daily earnings has been more favorable than is indicated by the static piece rates.

Farm output per man-hour continued upward in 1959, but farmwork will take about the same number of man-hours as in 1958. Farm output is a little higher this year than a year ago, primarily because of greater acreage of crops and greater livestock production. The increase in output per hour from 1958 to 1959 was much less than the average of recent years following the sharp increase from 1957 to 1958 (fig. 3).

Preliminary data from the Bureau of Employment Security, U. S. Department of Labor, indicate that around the middle of September this year there were 233,000 foreign workers employed on U. S. farms. At that time, they comprised about 8 percent of all hired workers, and the annual peak probably had not been reached. Last year, peak employment of foreign workers came in October, when they made up 11 percent of hired employment. These workers will continue to be available for seasonal farm jobs in areas certified as having an insufficient supply of workers from domestic sources.

The Labor-Management Reporting and Disclosure Act of 1959, commonly known as the labor reform bill or the Landrum-Griffin bill, which was passed by the First Session of the 86th Congress, is not expected to affect farm labor significantly.

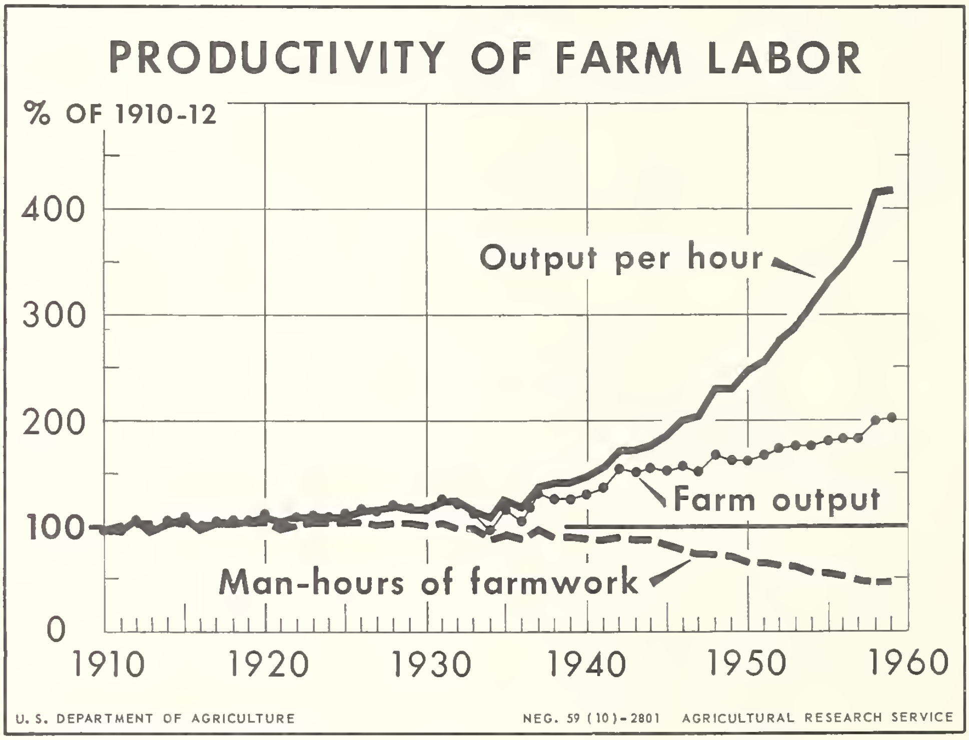


Figure 3

FARM POWER AND MACHINERY

From September 1958 to September 1959, wholesale and retail prices of farm machinery and equipment (excluding tractors) increased by approximately 3 and 5 percent, respectively. For the next year, pressures against inflation may serve to keep increases below those of last year. However, further slight increases seem likely in 1960.

Prices of farm machinery may be affected by the outcome of wage negotiations in the steel industry both through its effect on prices of steel and on wage rates in the farm equipment industry. Past behavior of wholesale prices of farm machinery is shown in figure 4. For several years these prices have been steady from January to August with an increase occurring after August. Some indication of the 1960 prices may be envisioned from these annual patterns.

Prices paid by farmers for motor supplies have changed little since 1957 (table 2). Prices paid for motor vehicles (including tractors) increased about 3 percent from September 1958 to September 1959.

Expenditures for farm machinery are expected to be lower in 1960 than in 1959. The production of farm machinery and equipment as indicated by the value of domestic shipments, adjusted for price changes, was around 10 percent higher in the first half of 1959 than in the same period a year earlier. Indications are that the increase for the year will be somewhat smaller.

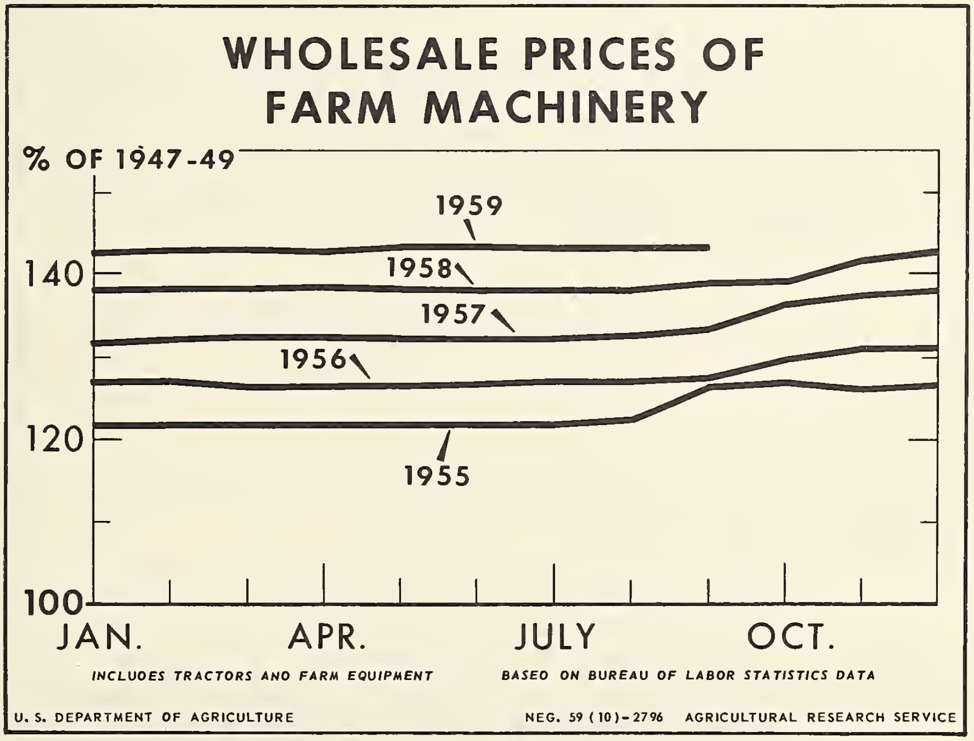


Figure 4

Table 2. - Power and machinery: Numbers of units on farms, prices paid by farmers, and value of manufacturers' shipments of farm machinery and equipment, United States, 1940-59

(Index numbers 1947-49=100)

Year	Number of units on farms January 1				Prices paid by farmers for-			Value of domestic shipments for farm use 1/ 4/	Wholesale prices of tractors, farm machinery, and equipment 5/
	Workstock: 3 years old and over	Tractors 1/	Automobiles	Motortrucks	Motor supplies 2/	Farm machinery	Motor vehicles 3/		
1940	144	54	97	55	71	64	56	---	68.9
1941	140	58	101	58	74	65	59	---	69.7
1942	136	65	109	61	79	69	64	---	72.2
1943	134	72	101	68	81	71	67	30	72.2
1944	130	76	98	73	82	73	73	55	72.5
1945	125	83	97	79	82	74	75	60	72.9
1946	117	87	99	82	84	76	77	69	78.1
1947	108	92	101	90	92	86	90	89	90.3
1948	100	99	99	101	103	101	100	107	101.4
1949	92	109	100	109	105	113	110	104	108.3
1950	85	119	98	117	106	116	110	104	110.7
1951	77	129	98	122	111	125	118	118	120.1
1952	67	137	99	128	112	129	123	101	121.6
1953	59	144	99	133	114	130	122	93	122.3
1954	52	149	99	138	116	131	122	77	122.2
1955	47	152	99	143	117	131	123	87	123.2
1956	43	158	99	148	119	136	127	71	127.6
1957	39	161	99	154	124	143	136	73	133.5
1958	36	164	99	158	123	149	142	6/ 84	139.0
1959 6/	33	167	99	162	7/ 123	7/ 155	7/ 146	93	7/ 143.2

1/ Excludes garden tractors. 2/ Includes fuel, oil, grease, tires, tubes, batteries, and spark plugs. 3/ Includes tractors, automobiles, and motortrucks. 4/ Based on data published in Facts for Industry, U. S. Bureau of the Census, values at 1947-49 prices. Includes tractors, farm machinery, and equipment; excludes motortrucks, automobiles, and attachments and parts for tractors. Figures for 1959 estimated. 5/ Bureau of Labor Statistics, U. S. Dept. of Labor. 6/ Preliminary. 7/ Average of first 9 months.

Shipments are expected to be lower in 1960 (table 2). Lower farm incomes are expected to more than offset needed replacements and purchases deferred from 1959 because of the steel strike. The increasing volume of shipments after 1946 may be an indicator of requirements in the years ahead, as machines now on farms reach replacement age.

More farmers are buying tractors designed to use diesel fuel or LP-gas. Since 1956, the production of wheel-type diesel tractors has more than doubled (table 3), but the number of factory-produced LP-gas type tractors has changed little. Many farm tractors, however, have been converted to use LP-gas.

Use of materials-handling equipment is expanding as indicated by shipments reported by the Bureau of the Census in "Facts for Industry." The number of units shipped for domestic use in 1955 and 1958, and the percentage increase from 1955 to 1958 are as follows:

	1955	1958	Percentage increase
Barn cleaners	4,949	11,867	140
Silo unloaders	1,524	5,487	260
Power unloading racks (for wagons and trucks)	6,427	14,317	123
Mechanical feeders	3,339	4,770	43
Pipeline milking units (individual clusters)	8,494	16,164	90
Elevators	163,289	207,382	27

Table 3. - Production of wheel tractors, estimated average maximum belt horsepower and percentage distribution by type of fuel, United States, specified years, 1940-59 1/

Year	Production	Average maximum belt horsepower	Fuel type: Gasoline	Fuel type: Diesel	Fuel type: Liquefied petroleum gas
	Thousands	Horsepower	Percent	Percent	Percent
1940	249	26	2/	2/	2/
1945	244	27	2/	2/	2/
1950	497	29	2/	2/	2/
1951	564	29	2/	2/	2/
1952	415	31	94	6	3/
1953	390	35	93	6	1
1954	246	39	87	11	2
1955	330	40	84	13	3
1956	215	40	82	13	5
1957	229	45	78	16	6
1958 4/	241	45	71	24	5
1959 5/	267	45	66	29	5

1/ Based on data published in "Facts for Industry," Bureau of the Census. (Domestic Production). 2/ Not available. 3/ Included with gasoline. 4/ Preliminary. 5/ Projected estimate for 1959 based on production through August.

Production of livestock and livestock products can be accomplished with less labor, time, and drudgery when materials are handled mechanically. But frequently, buildings must be redesigned or replaced to make an efficient system.

FEED

With the harvest of another record feed grain crop in prospect, feed prices are expected to average a little lower during the 1959-60 feeding season than a year earlier. Prices of high-protein feeds may average near the level of 1958-59. Meat meal and tankage prices are substantially lower than a year ago.

Tremendous supplies of feed grains and greatly increased numbers of livestock continue to dominate the livestock-feed situation. Based on October 1 indications, the total supply of all feed concentrates available for the feeding year 1959-60 will be about 7 percent larger than in 1958-59, continuing the upward trend of the last several years (table 4). The total supply is estimated at 265 million tons, 18 million tons above that of last year, and more than 40 percent larger than the 1952-56 average. Production of feed grain this season is nearly 6 percent higher than the record crop of 1958. Carryover stocks of feed grains on October 1, 1959, amounted to about 67 million tons, more than double the average for the years 1952-56.

A record supply of the four feed grains - corn, oats, barley, and sorghum grains - totaling around 235 million tons, is in prospect for 1959-60. Production from the 1959 crop is estimated to be about 167 million tons. Total consumption of the four feed grains is expected to be about 155 million tons, including about 130 million tons for feed.

The 1959 soybean crop of 533 million bushels, about 16 million tons, is 7 percent less than last year's record crop. Production of soybean meal during the 1959-60 feeding year is estimated at about the same as that of last year, 9.5 million tons. Cottonseed meal supply is expected to be about a fourth larger, peanut and copra meal about the same, and linseed meal somewhat less than the 1958-59 feeding year.

Feed prices averaged a little lower in August, September, and October this year than in the same period a year ago. The index of prices paid for feed in October at 84 (1947-49 = 100) was 1 point lower than a year ago. Prices of mixed feeds for dairy cows, were about the same as a year earlier, and for hogs and poultry they were a little lower.

As the harvest season has progressed, prices of feed grains have been influenced by the size of the crops produced (table 5). With the bumper corn crop in prospect, the price of corn in mid-October was $0.99 per bushel compared with $1.04 a year ago. With a short 1959 crop, the price of oats in mid-October was nearly 9 cents a bushel higher than a year ago. Prices of barley were about the same and prices of sorghum grains were 9 cents per hundredweight lower than a year ago. Production of both were above average.

Table 4. - Supply and utilization of feed concentrates, and livestock fed, United States, 1937-59 1/

Year beginning October 1	Supply				Utilization		Stocks of feed grains, end of year 3/	Number of grain-consuming animal units	Per grain-consuming animal unit		
	Stocks of feed grains, beginning of year	Production of feed grains	Other feed concentrates 2/	Total supply	Seed, human food, industry, and export	Concentrates fed to livestock			Production of feed grains	Supply of concentrates	Concentrates fed
	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million units	Tons	Tons	Tons
Average:											
1937-41	16.9	99.3	19.9	136.1	12.1	104.9	19.9	153.1	0.65	0.89	0.69
1942-46	14.7	117.3	29.4	161.4	14.8	133.0	13.5	176.9	.66	.91	.75
1947-51	22.2	116.9	25.5	164.6	12.5	123.9	23.5	162.2	.72	1.01	.76
1952-56	32.2	124.4	27.1	183.7	18.4	127.4	38.0	160.7	.77	1.14	.79
1952	20.1	119.7	27.9	167.7	16.9	122.7	27.0	158.8	.75	1.06	.77
1953	27.0	117.5	27.7	172.2	16.0	125.7	31.7	156.7	.75	1.10	.80
1954	31.7	123.9	26.2	181.8	18.5	126.1	39.1	161.5	.77	1.13	.78
1955	39.1	130.9	26.9	196.9	20.6	132.1	43.3	165.6	.79	1.19	.80
1956	43.3	130.2	27.0	200.5	19.9	130.7	48.9	161.8	.80	1.24	.81
1957	48.9	142.9	28.5	220.3	22.9	139.7	59.1	161.5	.88	1.36	.87
1958 4/	59.1	157.7	29.8	246.6	25.5	154.0	67.0	171.0	.92	1.44	.90
1959 5/	67.4	167.1	30.0	264.5	25.6	159.0	80.0	176.0	.95	1.50	.90

1/ U. S. Agricultural Marketing Service, Grain and Feed Statistics, March 1959, page 3, and Feed Situation, October 1959.

2/ Includes byproduct feeds, imported grains, and domestic wheat and rye fed.

3/ Stocks do not necessarily equal supply less feed and other utilization because of a difference in the crop year for different feed grains.

4/ Preliminary.

5/ Preliminary estimates based on indications in October 1959.

Table 5. - Average prices of feed, United States, October 15

Item	Unit	1957	1958	1959 2/	1959 as percentage of 1958
		Dollars	Dollars	Dollars	Percent
Prices received by farmers:					
Corn	Bushel	1.06	1.04	0.99	95
Oats	do.	.61	.56	.65	116
Barley	do.	.83	.86	.87	101
Sorghum grain	Cwt.	1.43	1.57	1.48	94
Hay, baled	Ton	18.50	18.00	20.50	114
Prices paid by farmers:					
Mixed dairy feed, 16 percent protein	Cwt.	3.57	3.57	3.58	100
Laying mash	do.	4.36	4.45	4.36	98
Broiler mash	do.	4.83	4.97	4.69	94
Cottonseed meal	do.	3.73	3.79	3.90	103
Soybean meal	do.	3.87	4.32	4.12	95
Bran	do.	2.68	2.66	2.76	104
Middlings	do.	2.79	2.79	2.93	105
Alfalfa hay, baled	Ton	30.30	28.90	30.60	106
Average value of concentrate ration fed to poultry and milk cows: 1/					
Fed to poultry	Cwt.	3.37	3.37	3.31	98
Fed to milk cows, in milk-selling areas	do.	3.01	2.89	2.90	100
Fed to milk cows, in cream-selling areas	do.	2.55	2.35	2.40	102

1/ Value of corn, oats, oilmeal, millfeed, commercial mixed feed, etc., that make up 100 pounds of "grain" ration.
2/ Preliminary.

Prices of oats and barley probably will continue higher than normal relative to prices of corn during 1959-60. For the rest of the feeding year, prices of sorghum grains, in general, may be low compared with prices of corn.

Feeding sorghum grains instead of corn may be profitable this year in areas where farmers buy concentrates for feeding operations, or where corn and sorghum grains are equally available. A comparison between the prices and the feeding values of the two grains will indicate where the savings in feed costs may occur.

The number of grain-consuming animal units probably will increase from about 171 million in 1958-59 to about 176 million in 1959-60. Large increases in numbers of beef cattle and hogs are expected. Numbers of dairy cattle will decrease about a half million, and numbers of poultry kept or raised will decrease nearly 2 million units. Recent low prices of eggs and broilers have brought about extensive adjustments in production, as indicated by hatchings of both broiler and egg-type chicks. The number of potential layers on farms October 1 this year was 4 percent lower than a year ago, and hatchings of broiler-type chicks were 9 percent lower in September than a year earlier.

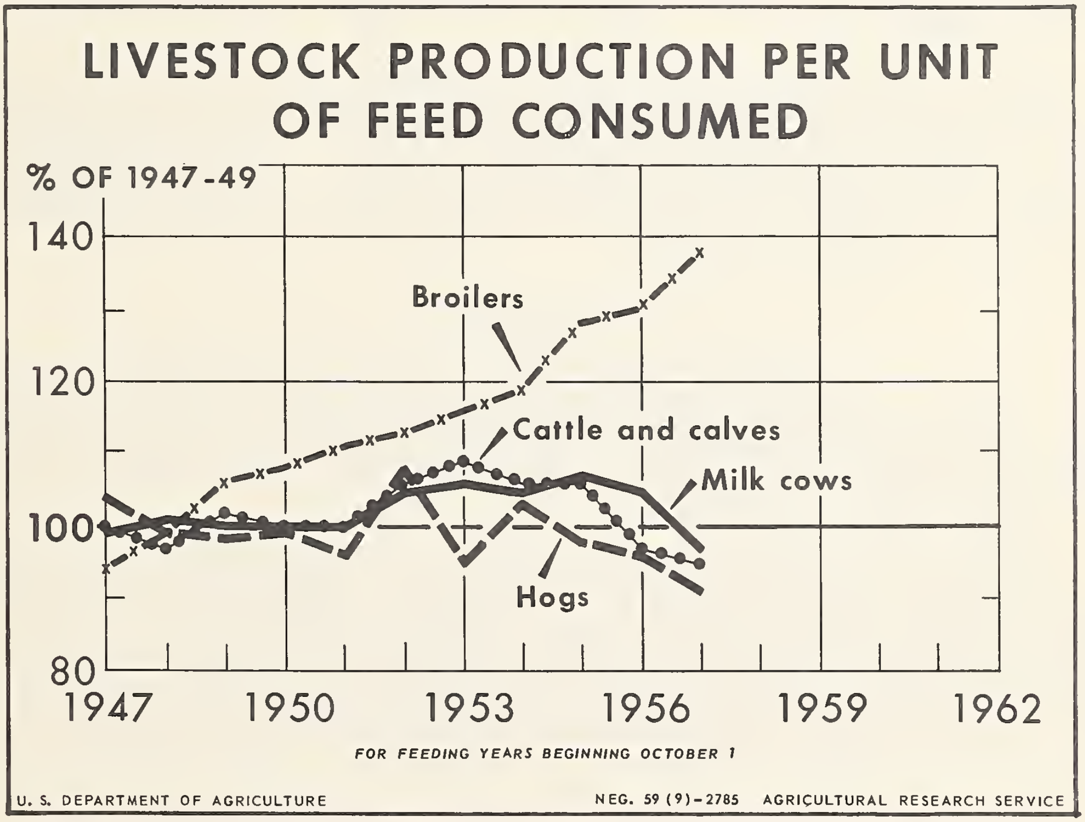


Figure 5

The number of roughage-consuming animal units will increase from about 95 million in 1958-59 to 100 million in 1959-60. The increase is brought about mainly by an increase of 5.5 million animal units of beef cattle.

Production of milk, beef, and pork per unit of feed consumed have declined in recent years (fig. 5), but production of broilers per unit of feed has increased. A number of factors affect these trends, including the relative spread between livestock returns and feed costs, quality of feed, and wastage.

With low prices of feed relative to prices of livestock, farmers have fed cattle and hogs to heavier weights and a higher degree of finish. Production of milk per cow has been rising, but the additional output has been attained at the cost of more feed per pound of milk at the higher level of production.

Improved efficiency in broiler production results from an intensive program of breed and feed improvement. With a relatively short life cycle and a large number of progeny per breeding unit, breeds of broilers have been improved much more rapidly than breeds of cattle or hogs. The combination of improved breeds and feed have enabled broiler producers to increase production per pound of feed more than has been possible with other classes of livestock. As each grower produces more flocks per year, the growing time per flock is shortened and birds are sold at lighter weights--before gain per pound of feed begins to decline.

Changes from a year ago in gross returns per $1.00 of feed cost, based on October 15 prices, for eight kinds of livestock vary from a decrease of 29 percent for hogs to no change for broilers (table 6). The price farmers received for broilers has declined 0.8 cents per pound, or 5 percent, in the last year, but the cost of feed also has declined 28 cents per 100 pounds of broiler mash, or about 6 percent.

LIVESTOCK

Prices paid by farmers for livestock have been declining for several months, and some further declines are likely in prices of feeder and stocker cattle. Prices paid for all livestock averaged 12 percent lower in mid-October than last April when they were the highest since May 1952; they were 7 percent lower than in October a year ago.

Prices paid by farmers for all classes of livestock declined between April and October this year (table 7); reductions ranged from 21 percent for baby chicks to 3 percent for milk cows. Compared with a year ago, prices in October were lower for all classes except milk cows. Prices of feeder and stocker cattle and calves were only 5 percent lower than a year earlier, but prices of baby chicks, feeder lambs, and feeder pigs were from 15 to 30 percent lower.

Table 6. - Gross returns from livestock enterprises per $1.00 of feed cost based on prices October 15, United States, 1957-59 1/

Livestock enterprise or product	October 15, 1957	October 15, 1958	October 15, 1959	1959 as percentage of 1958
	Dollars	Dollars	Dollars	Percent
Eggs	1.82	1.65	1.36	82
Broilers	1.27	1.14	1.14	100
Turkeys	1.39	1.49	1.43	96
Milk	2.35	2.36	2.21	93
Butterfat	1.45	1.61	1.45	90
Hogs	1.94	2.14	1.53	71
Sheep-raising	1.65	1.60	1.35	84
Beef-raising	1.98	2.62	2.34	89
	Index numbers (1947-56=100)			
Eggs	102	92	76	---
Broilers	88	79	79	---
Turkeys	79	85	82	---
Milk	114	115	107	---
Butterfat	103	114	103	---
Hogs	114	126	90	---
Sheep-raising	112	109	92	---
Beef-raising	111	147	131	---

1/ Quantities of feed used in calculating the cost of feed were as follows:

Eggs (per dozen) ---------- 7 lbs. poultry ration
Broilers (per lb.) ---------- 2.8 lbs. broiler mash
Turkeys (per lb.) ---------- 4.75 lbs. poultry ration
Milk (per cwt.) ---------- 31 lbs. concentrates, 110 lbs. hay equivalent
Butterfat (per lb.) ---------- 7.75 lbs. concentrates, 27 lbs. hay equivalent
Hogs (per cwt.) ---------- 7.5 bu. corn, 20 lbs. soybean meal
Sheep-raising (per cwt.) ------ 2 bu. corn, 1,500 lbs. hay equivalent
Beef-raising (per cwt.) ------ 3 bu. corn, 600 lbs. hay equivalent

In order to estimate costs of all harvested forages and pasture in the above quantities of feed, feeds from these sources were converted into hay equivalents and the price received by farmers for "all hay" was applied. It was assumed that feed nutrients from pasture cost one-fourth as much as the nutrients in hay. About one-third of the feed consumed by sheep is allotted to the production of wool. Basic data on amounts of feed fed are from U. S. Department of Agriculture, Production Research Report No. 21.

Table 7.- Prices paid by farmers for replacement livestock, 1958-59

Class	October 1958	April 1959	October 1959
	Dollars	Dollars	Dollars
Feeders and stockers:			
Cattle and calves, per cwt.	25.80	27.50	24.40
Lambs, per cwt.	22.90	19.20	18.40
Hogs, per cwt.	19.70	16.80	13.80
Baby chicks, straight run, per 100	12.60	13.50	10.70
Turkey poults, each	.541	.618	.497
Milk cows, each	220.00	235.00	228.00

Prices of feeder and stocker cattle and calves declined about $3.10 per 100 pounds from this year's high in April and May. Historically, they are still high, and they are high relative to prices of fat cattle. At $24.40 per hundredweight in mid-October, feeder and stocker prices were higher than at any time before March 1958, except for the period from the spring of 1950 to the fall of 1952. The abundance and relatively low prices of feed grains and withholding of cattle for herd replacement have served to support prices of feeder and stocker cattle.

For many months, cheap feed has kept the prices of feeder cattle high relative to the price of fed cattle. Since April 1958, prices of Good and Choice steer calves at Kansas City have been above prices of Choice fed steers at Chicago by $1.75 to nearly $8.00 per hundredweight (fig. 6). During the last 19 months, this reverse spread has averaged $5.35 per hundredweight; most of the time since August 1958, it has been between $5.00 and $6.00.

In September 1959, prices of Good and Choice steer calves averaged about $32.10 per hundredweight in Kansas City, and Choice fed steers were $27.60 in Chicago. If a feeder can produce beef for about 20 cents a pound or less, he can make a profit at these prices, as indicated by the following tabulation.

Sale value of Choice fed steer, 1,050 lb. at $27.60 per cwt.		$290
Cost per head:		
Feeder steer calf, 450 lb. at $32.10 per cwt.	$144	
Cost of gain, 600 lb. at 20 cents per pound	120	
Transportation and marketing costs	20	
Total		284
Margin		6

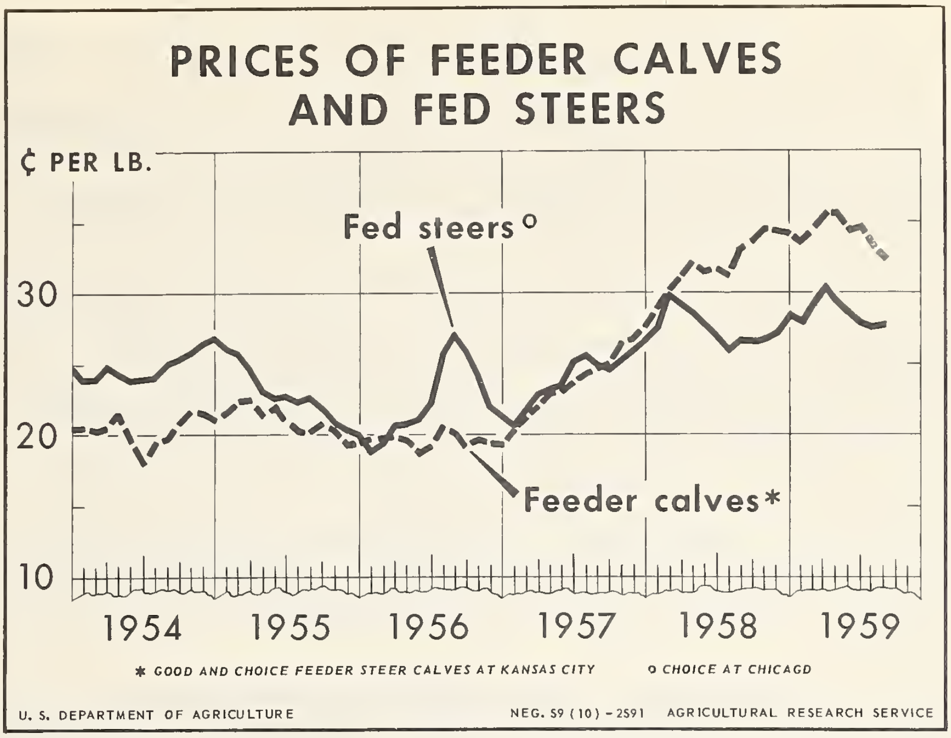


Figure 6

At a lower level of prices for both feeders and fat cattle, this margin would be reduced. For example, if prices of both feeders and fat cattle were $3.00 lower, the $6.00 margin would be eliminated and a loss of $13 would be incurred.

Costs of feed per pound of gain tend to rise as cattle are fed to heavier weights. On the other hand, many farmers can reduce overhead costs per pound of beef produced by increasing the size of their operations. A recent survey in the beef feeding areas of the Corn Belt indicates that the typical cattle feeder fed only 50 to 60 head last year; the number in the feed lot at any time probably was considerably smaller.

On October 1, 1959, the number of cattle and calves on feed in 21 States was 20 percent above October 1, 1958, but 7 percent below the number on feed July 1, 1959. The decline since July 1, however, was less than the decline in comparable periods in 1958 and 1957. The proportion of light cattle on feed this fall is greater than a year ago, but the distribution by length of time on feed is about the same. More cattle on feed could result in a backlog of heavy well-finished cattle that at times feeders may find difficult to market at current prices. If prices of fed cattle should decline from current levels, prices of feeder cattle would tend to drop faster.

SEED

Supplies of most grass and legume seeds are adequate for domestic needs, but prices are expected to be higher next spring than they were in 1959. Prices of cottonseed, soybeans, and seed grains are expected to be lower. Prices of seed potatoes will be higher in conformance with prices of market potatoes.

Supplies of most grass and legume seeds, including those held by dealers and growers, are adequate for normal domestic requirements, but supplies of several kinds will need to be supplemented by the usual imports. Production of Kentucky bluegrass, bromegrass, tall fescue, and alsike clover seed declined sharply in 1959, but supplies of these seeds will be above or close to domestic usage. In general, supplies of grass seeds are not as plentiful as a year ago, but supplies of alfalfa, clover, and cover crop seeds are more than adequate.

Retail prices of many seeds that farmers buy for fall planting tended to be higher in mid-September than a year earlier. Although the index of prices paid for seeds is 6 percent higher than last September, it is 84 percent of the 1947-49 average.

Of the 28 kinds of field crop seeds for which mid-September retail prices are available, prices of 16 were higher than a year earlier and those of 12 were lower. Increases of 10 percent or more were reported for crested wheatgrass (42 percent), smooth bromegrass (37 percent), tall fescue (26 percent), orchardgrass (18 percent), and Ladino clover (11 percent). Decreases of 10 percent or more were reported for common ryegrass (19 percent), sweet lupine (15 percent), and hairy vetch (12 percent). Increases of less than 10 percent were reported for improved varieties of alfalfa and for red clover, crimson clover, redtop, Kentucky bluegrass, perennial ryegrass, and blue lupine. Decreases of less than 10 percent were reported for common alfalfa, alsike clover, timothy, common vetch, seed wheat, seed oats, and seed rye.

As prices of potatoes are 50 percent higher this fall (October 15) than they were a year ago, prices of seed potatoes are likely to be substantially higher next spring than they were in the spring of 1959.

FERTILIZER

Consumption of primary plant nutrients probably will be from 5 to 10 percent higher in 1959 than in 1958, and little change from the 1959 level is expected in 1960. Production capacity is adequate and returns from fertilizer use are large enough for profitable use of more fertilizer. These margins are expected to prevail next year.

Prices of nitrogen fertilizers in general averaged about 3 percent lower in 1959 than in 1958, but prices of superphosphate were slightly higher. Prices of muriate of potash were about 1 percent lower.

During the last 10 years, prices of fertilizers have changed comparatively little. The price of nitrogen decreased somewhat as new carriers for the element became available. The use of anhydrous ammonia has increased. This is the lowest cost source of nitrogen when used at high rates of application. The price of anhydrous ammonia has decreased from $151 per ton in September 1957 to $143 in September 1959.

Prices of phosphate have tended to increase over the last 10 years. The price of 20 percent superphosphate averaged $31.20 per ton in 1947-49, and increased to $37.50 in September 1959; this was slightly higher than in 1958 and $0.50 more than in 1957.

Muriate of potash has decreased in price. The 1947-49 average price was $55.50 per ton; in September 1959, it was $51.80 per ton. In the last 3 years, the changes from September to September have been steadily downward.

Changes in prices for mixed fertilizers reflect the component parts. If the mixture is relatively high in nitrogen or K_2O, prices have decreased. If the mixture has a high percentage of P_2O_5 relative to the other two major elements, prices have increased. In some areas, however, there has been a trend away from complete mixtures to materials containing single nutrients.

The trend in use of primary nutrients (N, available P_2O_5 and K_2O) continues to increase but at a somewhat reduced rate. The increase, however, is mainly in nitrogen, while the use of available P_2O_5 and K_2O has not changed greatly from year to year, especially in the last 3 years. The greatest increases in nitrogen use have been in the Corn Belt, the Plains States -- especially Nebraska -- and Texas, followed closely by the Pacific States. In the Corn Belt States and in North Dakota, use of P_2O_5 has increased considerably and use of K_2O has increased to some extent.

More than 40 percent of the nitrogen in commercial fertilizers is applied in the form of anhydrous ammonia, ammonium nitrate, and ammonium sulphate. Nearly an equal amount is supplied in mixtures with phosphorus and potassium. The rest occurred in other materials containing nitrogen only or nitrogen in mixtures containing minor elements. Phosphorus is applied chiefly in mixtures with nitrogen and potassium. Seventy-eight percent is applied in mixtures and 16 percent is applied in the form of superphosphate. Eighty-five percent of the potash used is applied in mixtures with nitrogen and phosphate.

The price of the crop, as well as the cost of fertilizer, may influence the decision with respect to fertilizer use. For example, because of lower prices of corn, about 74 bushels are required to buy a ton of ammonium nitrate. In 1957, it took 70 bushels. But even though the ratio is less favorable than formerly, the decision on whether to use more fertilizer depends on returns from alternative uses of funds. Another item of major significance is the level of other costs of crop production. As these other costs rise, more fertilizer would be needed to maximize returns on the investment in producing the crop.

BUILDING MATERIALS

Prices of building and fencing materials are likely to be about the same in 1960 as they were in 1959. The effect of higher industrial wages on costs may be offset by a slight decrease in demand for materials as residential construction decreases.

The outlook for costs of buildings and fencing materials involves consideration of both price prospects and trends in types of buildings and types of materials used. For example, new farm service buildings or parts of them, are often constructed of metal rather than wood. On many farms, permanent fences have been replaced by electric fences to control livestock. On some dairy farms the need for field fences has largely disappeared because farmers are feeding "green chop" to their cattle, a practice in which forage is chopped in the field and hauled to the animals rather than letting them graze.

Other pertinent technological changes include loose housing and milking parlors for dairy cows. These permit the use of different materials and different quantities of materials as compared with the traditional stanchion barn. It has been estimated, for example, that in dairy herds of 50 cows or more a loose housing-milking parlor system requires an investment of only about half that required for a stanchion barn system.

Such technological changes and the prospects for further developments are a part of the outlook for building material costs. The outlook involves not only price prospects for traditional systems and materials but also the advantages, disadvantages, and prices of alternative systems and materials.

During the years, as farms have become more specialized and more commercialized, more nonfarm goods have been used, goods for which price movements are largely independent of farm commodity prices. Building and fencing materials are in this category. Prices paid for these materials this fall are slightly higher than a year earlier. In September 1959, the index (1947-49=100) was 133 as compared with 131 in September 1958.

The cost of materials needed to build a mile of typical farm fence (32-inch woven wire with two strands of barbed wire) rose to about $839 in the fall of 1959 from $826 a year ago and less than $300 in the late thirties. In contrast, the index of prices received by farmers for all items sold fell to 88 (1947-49=100) in September 1959 as compared with 91 a year earlier.

PESTICIDES

The current average wholesale price of pesticidal chemicals is 6 to 8 percent lower than in 1955, judging by published quotations of prices of 19 well-known items (table 8). Prices of some items, however, seem to be resisting further descent. The decline since 1955 occurred despite increased manufacturing costs for labor and materials.

Table 8. - Average weekly quotations of wholesale prices of 19 pesticidal materials, United States, selected years 1/

Material	Price per pound		
	1955	1958	1959 (Jan. 1-Sept. 30)
	Cents	Cents	Cents
Aldrin	80.9	93.0	94.4
Calcium arsenate	9.5	9.2	9.1
Chlordane	65.0	65.0	65.0
Copper sulfate	12.8	11.0	12.1
Cube (Peruvian root)	26.3	27.0	25.0
2, 4-D	41.5	40.0	40.0
DDD	45.0	46.0	46.0
DDT	27.0	21.8	23.0
Dieldrin	180.0	182.1	185.0
Endrin	375.0	355.5	339.6
Lead arsenate	27.5	27.3	29.2
Lindane	310.0	290.8	240.0
Malathion	93.4	89.4	89.0
Parathion	134.0	127.0	84.0
Pyrethrum (1.3% grade)	65.0	65.0	69.2
Sodium TCA	37.5	36.6	35.0
2, 4, 5-T	125.0	118.0	118.0
TEPP	69.0	75.0	75.0
Toxaphene	20.0	22.0	22.0

1/ Calculated from quotations in Oil, Paint, and Drug Reporter.

Prices of all materials have not changed uniformly. From 1949 to 1958, wholesale prices of some representative materials changed as follows:

Benzene hexachloride, down 67 percent
Calcium arsenate, down 9 percent
Copper sulfate (crystals), up 49 percent
Copper sulfate (tribasic), up 27 percent
2,4-D, down 41 percent
DDT, down 32 percent

Prices of finished pesticide preparations ready for use by growers are dependent, not only on the cost of the primary ingredient but also on costs of solvents, emulsifiers, dust diluents and other additives, plus containers and labor, transportation, and other services. Hence, lower prices of primary chemicals do not necessarily result in lower prices of finished preparations.

However, competition in the pesticide trade has forced appreciable reduction in prices during the last several years. The capacity to manufacture pesticides, which is increasing from year to year, remains adequate to meet foreseeable domestic infestations and supply a considerable export market.

The practice of treating crops to prevent loss from pests is increasingly used to protect investment in fertilizer and other factors of production. Growers may well be confused, however, by the array of new pesticides developed commercially within recent years. Some of these materials are effective agains pests previously uncontrollable, but many compete with longer established pesticides.

FARM REAL ESTATE

The sharp rise in land prices of the last 5 years, which added nearly a third to market values, may be leveling off. With farm income in the last half of 1959 down sharply from a year earlier, and some further decline likely in 1960, the stimulus given the land market by the excellent returns of 1958 will be lacking. The longer range outlook is also clouded by uncertainties as to future farm policies, particularly with respect to price-support levels for wheat and feed grains and further building up of crop inventories from the 1959 harvest. Current levels of interest rates and stronger competition for the available supply of mortgage credit may also postpone some purchases of land, particularly if these conditions are viewed as temporary.

Increases in land values in the 4 months ended July 1, 1959, were a little less than in previous comparable periods. Values remained essentially unchanged in nearly half the States, and the national average advanced only 1 percent. Except for the November 1957 to March 1958 period, this was the smallest increase in any 4-month period since July 1956.

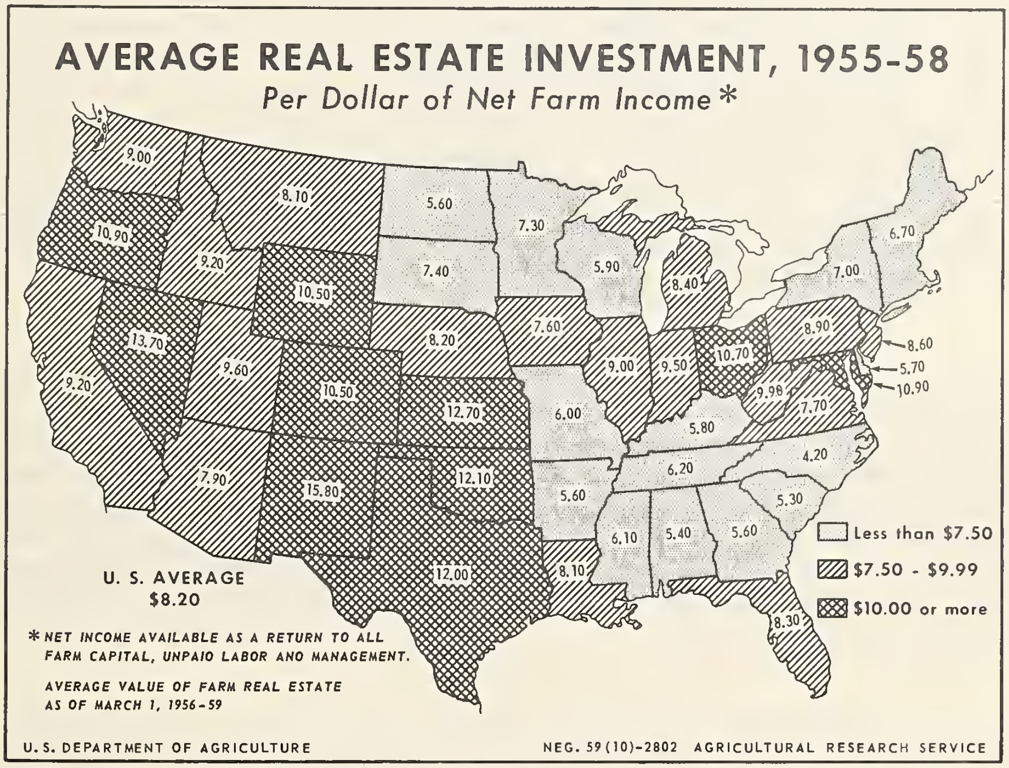
Market values of farm real estate advanced 6 percent in the year ended July 1, 1959. This brought the national index of average value per acre to 169 (1947-49 = 100), a new record high. The estimated total market value of all farm real estate rose to $126.6 billion, or a national average of $109 per acre.

Some factors that tend to support a further rise in the land market are the continuing pressures for enlargement of farms and the demand by farm operators for the limited number of tracts of land that come on the market. Even though average farm income is lower, most areas are likely to have a sufficient number of farmers with surplus funds, or who are in favorable positions to borrow, to maintain this demand. The prospects of further gains in the general economy, continuing inflationary pressures, and the conversion of farmland to nonfarm uses are likely to continue to support land prices in some areas.

The proportion of total farm capital represented by real estate is now the highest it has been in recent decades. Prices per acre have advanced more than have prices of farm machinery, livestock, and most other major types of productive capital. As size of farm increased also, the total increase in the investment in real estate is even more than the increase in prices per acre. In 1958, for example, farm real estate accounted for 75 percent or more of the total capital investment of more than half of 32 types of commercial farms for which costs and returns are estimated. Cattle ranches in the Intermountain region were the only type of farm for which real estate represented less than 50 percent of total farm capital.

The value of real estate per dollar of net farm income is twice as high in some States as in others (fig. 7); it is lowest in the Southeast and the Northern Plains, and highest in the Southern Plains and Mountain regions. Several eastern States, notably Ohio, West Virginia, and Maryland, have a high value of real estate per dollar of net farm income because of nonagricultural factors which raise values above the level that would be supported by farm income alone.

Some of the regional differences in the amount of real estate capital associated with a given amount of farm income result from differences in the relative proportions of real estate and nonreal estate capital that are combined in the typical farm business. Machinery and livestock represent substantial investments on some types of farms; therefore, more of net income is attributable to this capital, and less to real estate.


AVERAGE REAL ESTATE INVESTMENT, 1955-58

Per Dollar of Net Farm Income*

* NET INCOME AVAILABLE AS A RETURN TO ALL FARM CAPITAL, UNPAID LABOR AND MANAGEMENT.

AVERAGE VALUE OF FARM REAL ESTATE AS OF MARCH 1, 1956-59

U. S. DEPARTMENT OF AGRICULTURE NEG. 59(10)-2802 AGRICULTURAL RESEARCH SERVICE

Figure 7

Annual outlays for items used in farm production also vary as a proportion of total annual inputs among different types of farms. On dairy and poultry farms, for example, purchased feed is an important input that usually yields a return above its cost, while labor and management also contribute directly to farm income. On these farms, returns from real estate represent a relatively small part of net farm income. Similarly, where large amounts of fertilizer are used, as in the Southeast, a part of the farm income is derived from the returns to fertilizer above its cost.

The current relationship between land values and net farm income also reflects differences in the relative rates of increase in values and in net farm income over the last decade. In some areas, particularly the area extending from Georgia westward and including most of the Mountain States, land values are currently high in relation to the level of income received in 1955-58. The ratio of real estate capital to net farm income was at least 50 percent higher in these States in 1955-58 than in 1936-40.

The current levels of land values in most of the Corn Belt States are not grossly out of line with the levels of farm incomes received in 1955-58. Although values in Ohio, Michigan, and Indiana are higher in relation to incomes than in 1936-40, values in the remaining States, including those in the Northern Plains region, are about the same in relation to incomes as in the earlier period.

The average level of land values for the country as a whole as of March 1, 1959, was 7.9 times net farm income in 1958. This was slightly less than the average for 1955-58 (8.2) but close to the relationship that existed in 1910-14. The ratio for 1955-58 was about 30 percent higher than in 1936-40, the most recent period when the relationships between land values and farm incomes was relatively stable. This difference of 30 percent probably is not excessive if allowances are made for changes in the productivity of land, advances in technology, and differences in the general economic situation between the two periods. However, further substantial gains in land values without corresponding support from farm income would result in a value-income ratio higher than has prevailed for any extended period in the past.

INTEREST

Interest charges paid by farmers have risen considerably during the last year and show no signs of declining. Farm debt has increased and rates of interest on farm loans have risen. In some States, interest rates on new loans made by some lenders are nearing the legal limit that may be charged. The rates charged farmers tend to move in the direction of money market rates, but usually lag behind them. Money market rates have increased steadily during 1959 because of a strong demand for credit which emanated from the rapid economic growth of the country.

Farm mortgage debt continues to rise. During 1957 and 1958, it increased by 6 and 7 percent, respectively. Probably, by January 1, 1960, it will have risen another 6 percent. Non-real-estate debt of farmers to banks and federally sponsored agencies increased about 15 percent during 1958, and it is expected to increase that much or more during the current year.

The high cost of money is evidenced by interest rates on recent issues of Federal land bank bonds and Federal intermediate credit bank debentures. The last longer-term (9-year) Federal land bank bond was sold in March 1959 at a yield to investors of 4.35 percent per annum; in August, a 3-year issue was sold to yield 4.75 percent, and in October 1959 a 2 1/2 month issue was sold to yield 5.00 percent. Yields on 9-month debentures sold by the Federal intermediate credit banks increased from 4.125 percent per annum in April 1959 to 5.25 percent in September 1959.

This increase in the cost of money has made it necessary for the Federal land banks and the production credit associations to raise their rates on new loans to farmers. On November 1, 1959, 9 of the 12 land banks were charging 6 percent on new real estate loans and the other 3 were charging 5 1/2 percent. One year earlier, 3 of the land banks were charging 5 1/2 percent and 9 were charging 5 percent.

The production credit associations have increased their rates also during 1959. The tabulation that follows shows a distribution of associations, by rates charged, as of September 1, 1958, and October 1, 1959.

Rates	September 1, 1958	October 1, 1959
	Percent	Percent
5.0 to 5.9	14	2
6.0 to 6.9	80	59
7.0 to 7.9	6	35
8.0 to 8.9	0	4
	100	100

Bank rates to farmers have not increased as rapidly as those of the production credit associations because the rates charged by local banks are not tied as closely to central money markets. But the rates charged by banks on loans to farmers have moved up as returns on alternative investments have increased. A survey made by the American Bankers Association in September 1959, indicated that average bank rates to farmers have increased since last fall from 5.77 to 6.03 percent on real estate mortgage loans and from 6.55 to 6.76 percent on nonreal estate loans.

TAXES

Tax payments on farm property (real estate and tangible personal property) probably will be around 6 percent higher in 1960 than in 1959. Taxes to be paid in 1959 (based for the most part on levies made in 1958) will total about $1,343 million. Next year these payments probably will be about $1,420 million. Farm real estate taxes will be more than four-fifths of this payment; the rest will be taxes on personal property.

Taxes payable on farm real estate in 1959 totaling $1,103 million are up 5.7 percent from last year. Tax payments in 1960, based on 1959 levies, are expected to total $1,170 million, an increase of 6 percent. This will be the 19th consecutive year in which taxes have advanced. This increase in taxes will push the average tax per acre to a new high of $1.09. By comparison, the taxes levied on farm real estate averaged $1.03 in 1958; $0.69 in 1950; and $0.44 in 1945.

With this increase in farm real estate tax payments, it is anticipated that the index of taxes per acre will advance about 30 points to a record high of 526 (1909-13 = 100) in 1960.

Tax payments on farm personal property comprise in the neighborhood of 20 percent of farmers' total property tax bill each year. In 1959, taxes paid on this kind of property totaled $240 million. In 1960, the payment probably will total $250 million, an increase of approximately 4 percent.

The continued rise in farm real estate taxes is a direct outgrowth of steadily expanding revenue requirements of State and local governments. Most of the taxes levied on farm real estate go to support services of local government, such as schools, roads, and public welfare. These governments are faced with urgent fiscal problems in meeting rising costs of providing the traditional kinds of services along with the additional burden of financing new and expanded governmental programs and services.

Because the general property tax (including farm and nonfarm property) remains the major financial bulwark of local governments, it continues to pay for the major share of local services. The major expenditure, of course, is for public education. In 1957, the latest year for which data are available, almost half of the general expenditures of local governments, or $11,635 million, went for this purpose.

The Federal tax on gasoline was increased from 3 cents to 4 cents a gallon, effective October 1, 1959. In addition, three States increased their motor fuel taxes in 1959. With few exceptions, State tax rates now range from 5 to 7 cents per gallon, with the 6-cent rate most common. The Federal Government and most States refund the portion of the tax that represents motor fuel used off the highways, but farmers are taxable on the remainder. Farmers will pay an estimated net amount of $320 million in State and Federal motor fuel taxes in 1960.

State sales taxes are increasing. Such taxes are now in effect in 32 States. In many States, selected farm production items are exempt. Sales taxes paid per farm-operator family are estimated at $60 per year, assuming a 2-percent tax rate applicable to food as well as other consumer items, and to the production items most commonly taxed.

INSURANCE

Expenditures by farmers for insurance increased in 1959 and are expected to do so again in 1960. The volume of insurance on farm property and on crops against hail damage was at a record high level in 1959. Premiums paid by farmers for all farm business insurance account for about 2 percent of total production expenses, or about a half-billion dollars annually.

COSTS BY TYPE OF FARM

Total farm expenses in 1959 for the United States are expected to be about 3 percent higher than in 1958. On a per farm basis, the increase will be greater because of the continued decline in the number of farms. On the other hand, present indications are that gross farm income for 1959 may total some 3 percent less than in 1958. Net farm income may be 15 percent lower. Of course, there will be wide departures from this general pattern among types of farms and production areas.

Total operating expenses per farm are expected to be higher in 1959 than in 1958 on each of six important types of farms in widely separated areas for which costs and returns have been estimated for the 2 years (table 9). They probably will range from 3 percent higher on poultry farms in New Jersey and winter wheat farms in the Southern Plains up to 19 percent higher on cotton farms in the Black Prairie of Texas. Slightly higher prices paid for production inputs and greater output on some farms were the chief factors contributing to the increase. A larger cotton acreage is the main factor responsible for the expected 19-percent increase in operating expenses on the Black Prairie cotton farms.

Operating expenses per unit of production in 1959 are expected to range from virtually no change from 1958 on poultry and hog dairy farms up to 19 percent on winter wheat farms. Lower per acre yields were the main factors accounting for the big increase on winter wheat farms. Of the 30 types of farms for which comparable data are available over a series of years, 15 had higher operating expenses per unit of production in 1958 than in 1947-49 (table 10). They were lower on 10 types of farms, and did not change appreciably (3 percent or less) on the other 5.

During the last decade, operating expenses per dollar of gross income rose on nearly all types of farms (fig. 8). Of those illustrated, increases ranged from 3 cents more per dollar of gross income on Northeast dairy farms to 17 cents more per dollar on Black Prairie cotton farms. Of 30 types of farms for which data are available, the range was from no change on Piedmont cotton farms to 18 cents higher on cattle ranches in the Southern Plains.

Table 9. - Costs and returns, selected types of farms, 1958 and indications for 1959

Type of farm and item	Unit	1958	1959 as percentage of 1958
			Percent
Poultry farms, New Jersey:			
Gross farm income	Dollar	28,779	89
Operating expenses	do.	26,086	103
Net farm income	do.	2,693	1/
Layers on hand, average during year	Number	4,104	103
Eggs produced	Dozen	66,348	104
Net farm production	Index 2/	153	105
Operating expense per unit of production	do.	84	99
Input per unit of production	do.	92	98
Prices paid	do.	90	101
Prices received	do.	71	85
Dairy farms, Central Northeast:			
Gross farm income	Dollar	11,765	102
Operating expenses	do.	6,955	105
Net farm income	do.	4,810	97
Cows, 2 years old and over	Number	27.3	102
Net farm production	Index 2/	139	99
Operating expense per unit of production	do.	106	106
Input per unit of production	do.	88	102
Prices paid	do.	113	103
Prices received	do.	99	102
Hog-dairy farms, Corn Belt:			
Gross farm income	Dollar	13,839	94
Operating expenses	do.	6,391	108
Net farm income	do.	7,448	83
Corn production	Bushel	3,174	124
Net farm production	Index 2/	144	108
Operating expense per unit of production	do.	98	100
Input per unit of production	do.	79	95
Prices paid	do.	119	103
Prices received	do.	90	88

-Continued

Table 9. - Costs and returns, selected types of farms, 1958 and indications for 1959 -Continued

Type of farm and item	Unit	1958	1959 as percentage of 1958
			Percent
Cotton farms, Black Prairie, Texas:			
Gross farm income	Dollar	6,374	101
Operating expenses	do.	3,489	119
Net farm income	do.	2,885	79
Cotton	Acre	36.3	136
Other crops	do.	66.9	95
Net farm production	Index 2/	108	111
Operating expense per unit of production	do.	108	107
Input per unit of production	do.	91	101
Prices paid	do.	114	101
Prices received	do.	89	100
Winter wheat farms, Southern Plains:			
Gross farm income	Dollar	18,047	85
Operating expenses	do.	5,601	103
Net farm income	do.	12,446	77
Wheat	Acre	238	99
Grain sorghums	do.	72	101
Cropland, fallow and idle	do.	165	99
Net farm production	Index 2/	156	85
Operating expense per unit of production	do.	84	119
Input per unit of production	do.	70	116
Prices paid	do.	125	102
Prices received	do.	84	100
Cattle ranches, Intermountain region:			
Gross ranch income	Dollar	19,034	107
Operating expenses	do.	5,919	104
Net ranch income	do.	13,115	109
Breeding cows and heifers, 2 years old and over	Number	126.0	102
Calf crop	Percent	85	101
Net ranch production	Index 2/	147	101
Operating expense per unit of production	do.	128	102
Input per unit of production	do.	81	100
Prices paid	do.	137	101
Prices received	do.	110	105

1/ Net loss in 1959
2/ Index numbers 1947-49 = 100.

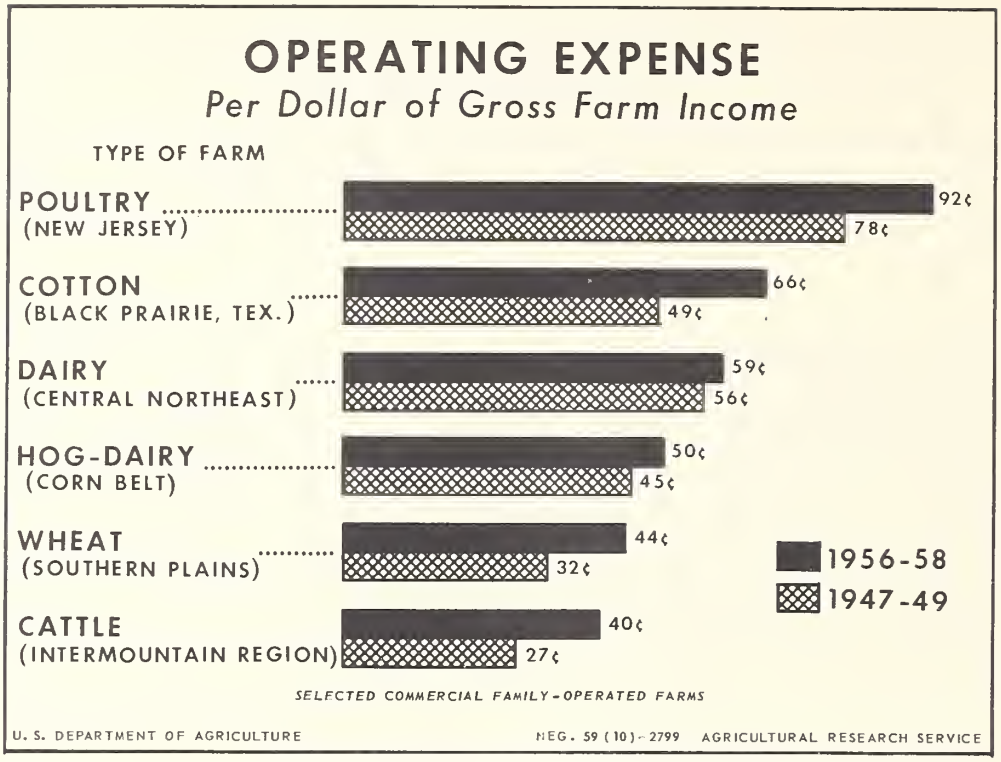


Figure 8

On 26 of the 30 types of farms, inputs (costs at constant prices) per unit of production were lower in 1958 than in 1947-49 (table 11). On a few types of farms, lower inputs per unit of production were due to unusually favorable production conditions in 1958, but on most of the farms they were due to gains in production efficiency over the last decade. Much of this has resulted from widespread use of labor-saving devices, improved pesticides, antibiotics and the like, and more liberal use of some of the relatively less expensive resources.

Poultry Farms (Egg Producing), New Jersey

Preliminary indications are that operating expenses per farm on commercial family-operated poultry farms in New Jersey will be a little higher in 1959 than in 1958. This is mostly due to a larger volume of production than last year. Prices paid for feed have averaged about the same as in 1958, but some nonfeed items are a little higher than they were last year. The overall increase in prices paid is slight, and costs of production per unit of product probably will be about the same or a little lower.

Prices received by producers for eggs thus far in 1959 have averaged considerably below those of the corresponding months in 1958, particularly in late spring and early summer. They are expected to continue below 1958 levels the rest of this year. Present indications are that this will mean widespread operating losses for the year as a whole on commercial poultry farms in New Jersey and elsewhere. It seems unlikely that cash receipts on these farms will cover out-of-pocket costs, even if nothing is spent on buildings and equipment.

Table 10. - Operating expenses per unit of production, specified types of commercial farms, 1958 with comparisons 1/
(Index numbers 1947-49 = 100)

Type and location of farm	Average		1951	1952	1953	1954	1955	1956	1957	1958 2/
	1937-41	1948-57								
Dairy farms:										
Central Northeast	52	100	103	113	102	97	93	95	101	106
Eastern Wisconsin	45	112	112	119	114	114	117	113	118	129
Western Wisconsin	38	106	107	111	105	114	110	102	104	110
Dairy-hog, Southeastern Minnesota	45	105	110	110	111	108	102	99	105	106
Corn Belt farms:										
Hog-dairy	50	104	111	111	111	101	105	100	99	98
Hog-beef raising	50	102	108	104	113	117	98	97	98	94
Hog-beef fattening	44	111	134	112	105	114	109	108	111	120
Cash grain	49	115	118	125	129	124	121	106	121	118
Poultry, New Jersey (egg producing) 3/	---	94	97	100	96	96	89	87	83	84
Cotton farms:										
Southern Piedmont	49	108	106	118	111	121	97	106	109	96
Black Prairie, Texas	38	120	138	129	112	131	107	147	119	108
High Plains, Texas (nonirrigated)	44	136	126	171	277	116	125	141	88	83
High Plains, Texas (irrigated)	---	113	120	118	126	111	128	113	100	88
Mississippi Delta (small)	---	124	142	136	129	135	117	127	141	141
Mississippi Delta (large-scale)	---	102	125	114	99	104	86	91	104	100
Peanut-cotton farms:										
Southern Coastal Plains	---	121	123	134	128	137	3/ 115	3/ 119	3/ 138	123
Tobacco farms:										
Tobacco-livestock, Kentucky	47	116	110	112	117	114	130	130	138	136
Tobacco-cotton, North Carolina	---	115	110	118	122	131	112	109	131	123
Spring wheat farms, Northern Plains:										
Wheat-small grain-livestock	59	105	93	125	117	129	82	78	113	84
Wheat-corn-livestock	60	116	100	149	117	121	123	119	100	86
Wheat-roughage-livestock	92	115	110	158	104	125	102	121	107	103
Winter wheat farms:										
Wheat, Southern Plains	90	129	155	84	148	121	142	152	157	84
Wheat-grain sorghum, Southern Plains	92	155	150	125	234	163	189	158	155	82
Wheat-pea, Washington and Idaho	60	111	122	114	106	100	130	109	105	132
Wheat-fallow, Washington and Oregon	64	116	112	117	110	120	154	134	104	108
Cattle ranches:										
Northern Plains	66	121	135	123	115	116	123	125	119	124
Intermountain region	48	136	136	142	146	168	155	130	129	128
Southwest	---	125	144	166	138	138	113	149	103	101
Sheep ranches:										
Northern Plains	51	114	110	133	112	121	118	124	95	99
Southwest	---	122	139	132	136	128	112	137	112	85

1/ Exclusive of charges for capital and unpaid labor.
2/ Preliminary.
3/ Revised.

Table 11. - Input per unit of production, specified types of commercial farms, 1958 with comparisons 1/

(Index numbers 1947-49 = 100)

Type and location of farm	Average		1951	1952	1953	1954	1955	1956	1957	1958 2/
	1937-41	1948-57								
Dairy farms:										
Central Northeast	105	92	94	94	90	87	85	86	86	88
Eastern Wisconsin	109	95	95	97	95	93	93	88	87	92
Western Wisconsin	102	90	91	92	88	89	85	80	76	78
Dairy-hog, Southeastern Minnesota	104	87	91	86	86	83	79	76	77	75
Corn Belt farms:										
Hog-dairy	112	91	95	92	93	86	89	84	81	78
Hog-beef raising	109	89	94	85	96	100	84	82	80	75
Hog-beef fattening	107	97	100	94	98	99	98	99	93	88
Cash grain	101	94	98	99	101	95	93	80	88	84
Poultry, New Jersey (egg producing) 3/	---	95	95	95	95	96	95	93	92	92
Cotton farms:										
Southern Piedmont	108	96	97	98	92	104	78	92	94	77
Black Prairie, Texas	105	106	120	109	88	116	90	132	101	91
High Plains, Texas (nonirrigated)	105	135	112	156	303	116	126	140	79	68
High Plains, Texas (irrigated)	---	107	109	107	118	106	120	104	91	76
Mississippi Delta (small)	---	105	121	111	100	112	93	102	110	106
Mississippi Delta (large-scale)	---	97	112	100	93	99	82	89	101	97
Peanut-cotton farms:										
Southern Coastal Plains	---	97	97	104	96	109	3/ 84	3/ 86	3/ 94	82
Tobacco farms:										
Tobacco-livestock, Kentucky	111	99	94	92	97	91	106	105	110	107
Tobacco-cotton, North Carolina	---	99	90	101	104	107	93	88	107	94
Spring wheat farms, Northern Plains:										
Wheat-small grain-livestock	140	98	85	118	106	120	76	72	99	70
Wheat-corn-livestock	118	102	86	130	100	105	105	101	83	72
Wheat-roughage-livestock	183	104	97	137	92	111	90	105	95	90
Winter wheat farms:										
Wheat, Southern Plains	173	115	132	72	127	105	124	131	130	70
Wheat-grain sorghum, Southern Plains	182	143	138	109	208	146	169	151	139	69
Wheat-pea, Washington and Idaho	115	94	103	91	87	81	106	85	79	100
Wheat-fallow, Washington and Oregon	125	100	99	98	92	99	129	110	83	89
Cattle ranches:										
Northern Plains	130	100	97	95	93	94	99	101	92	94
Intermountain region	103	102	97	99	106	111	104	92	85	81
Southwest	---	115	107	128	123	132	114	148	104	92
Sheep ranches:										
Northern Plains	109	97	84	99	92	103	99	103	79	77
Southwest	---	117	116	114	128	128	112	144	121	87

1/ Includes charges for capital and unpaid labor.
2/ Preliminary.
3/ Revised.

Despite a 5-percent gain in net production per farm on these New Jersey farms, gross farm income may be about 10 percent below that of 1958. Prices received appear likely to average about 15 percent below last year.

Dairy Farms, Central Northeast

Total operating expenses on specialized dairy farms in the Northeast are expected to be around 5 percent higher in 1959 than a year earlier.

Prices paid by these dairymen for inputs used in production will average 3 percent higher in 1959 compared with 1958. Along with this increase in cost rates, estimates for 1959 indicate that these farmers purchased greater quantities of inputs such as feed, seed, livestock, fertilizer, and machinery all at higher costs per unit than a year ago. These additional cash outlays and a slight decrease in production per farm (due mainly to poorer pastures) are expected to raise operating expenses per unit of production 6 percent higher in 1959 than they were in 1958.

The estimated 2 percent increase in prices received for products sold by these dairymen will not be sufficient to cover the additional expenses incurred in 1959. As a result, net farm incomes in 1959 are expected to be 3 percent below incomes in 1958.

Cash expenditures for some items have changed appreciably since 1947-49. For instance, cash outlays for machinery and machinery operating expenses have increased by 124 percent, while cash outlays for hired labor have decreased by 8 percent.

The large increase in machinery expenses per farm indicates that these farmers are substituting capital for labor. That is, they are investing in machinery to increase output and reduce unit costs. Of the total increase in cash expenditures on these farms from 1947-49 to 1959, machinery and equipment accounted for 54 percent, taxes 13, livestock 12, feed 10, fertilizer and lime 5, and other expenditures 6 percent.

Hog-Dairy Farms, Corn Belt

Early indications are that both operating expenses and net farm production will be about 8 percent higher on hog-dairy farms in 1959 than they were in 1958. If so, operating expenses per unit of production will be about the same as last year and slightly below the 1947-49 average.

This year, net farm production is expected to be some 55 percent above the 1947-49 average on these farms. Part of this increase is due to a 6-percent increase in size of farms.

Production of corn this year will be more than double the 1947-49 average and nearly a fourth larger than last year's record crop. The gain over last year results from a 16-percent increase in acreage planted to corn and a 6-percent rise in yield per acre. Most of the expansion in corn acreage was at the expense of acreage in other crops, although total cropland harvested also increased slightly following the end of the Acreage Reserve Program.

Net farm incomes in 1959 are expected to average 17 percent below those of 1958 mainly because prices received for hogs are down about $5.50 per 100 pounds. The decline in hog prices more than offsets a 15-percent rise in number of hogs sold and a small increase in income from the dairy enterprise. A 3-percent rise in prices paid for goods and services used in production also reduced earnings on these farms in 1959.

Cotton Farms, Black Prairie

Operating expenses on cotton farms in the Black Prairie of Texas are estimated to average 19 percent higher in 1959 than a year earlier. Higher operating expenses are due mainly to an increase of about 12 acres of cotton per farm following the discontinuation of the Acreage Reserve Program.

Net farm production will be about 11 percent higher than in 1958. Although the acreage of cotton was 36 percent larger than in 1958, lower yields of cotton restricted the increase in production. With operating expenses rising more than production, operating expenses per unit of production were 7 percent higher in 1959 than in 1958.

In 1959, inputs (total costs at 1947-49 average prices) per unit of production probably will be about the same as in 1958. With fixed inputs about the same in 1959 as in 1958, larger production in 1959 caused fixed inputs per unit of production to be lower. Thus the decrease in fixed costs per unit of production about offset the increase in operating costs per unit of production.

If prices received for cotton lint and cottonseed for the year average the same as the prices in mid-October, net farm income on cotton farms in the Black Prairie in 1959 probably will average 21 percent below 1958. Lower incomes are due to lower yields per acre. Price cost relationships are only slightly less favorable than a year earlier. The effect of a larger volume of production in 1959 on income is offset by the reduction in Government payments received for the acreage of cotton put in the soil bank.

Winter Wheat Farms, Southern Plains

Total operating expenses per farm in 1959 probably will be about 3 percent higher than in 1958. However, operating expenses per unit of production are expected to be 19 percent higher, chiefly because of lower wheat production in 1959. Prices paid for goods and services used in production on these winter wheat farms are expected to average about 2 percent higher in 1959 than in 1958 and about 28 percent higher than in 1947-49.

Crop yields in 1959 on these farms are lower than the record high yields of 1958, but well above the 1948-57 average. Wheat yields in 1959 averaged 21 bushels per acre as compared with 29 bushels in 1958. The yield of grain sorghum is indicated to be about 30 bushels in 1959 compared with 32 bushels in 1958. No material change is expected in the harvested acreage.

Production per farm in 1959 is expected to be about 15 percent lower than in 1958, but 33 percent higher than the 1947-49 average. Prices received probably will average about the same in 1959 as in 1958, but 16 percent lower than in 1947-49.

Net farm income per farm in 1959 is expected to average about $9,600 as compared with $12,400 in 1958 and $10,000 in 1947-49.

Cattle Ranches, Intermountain Region

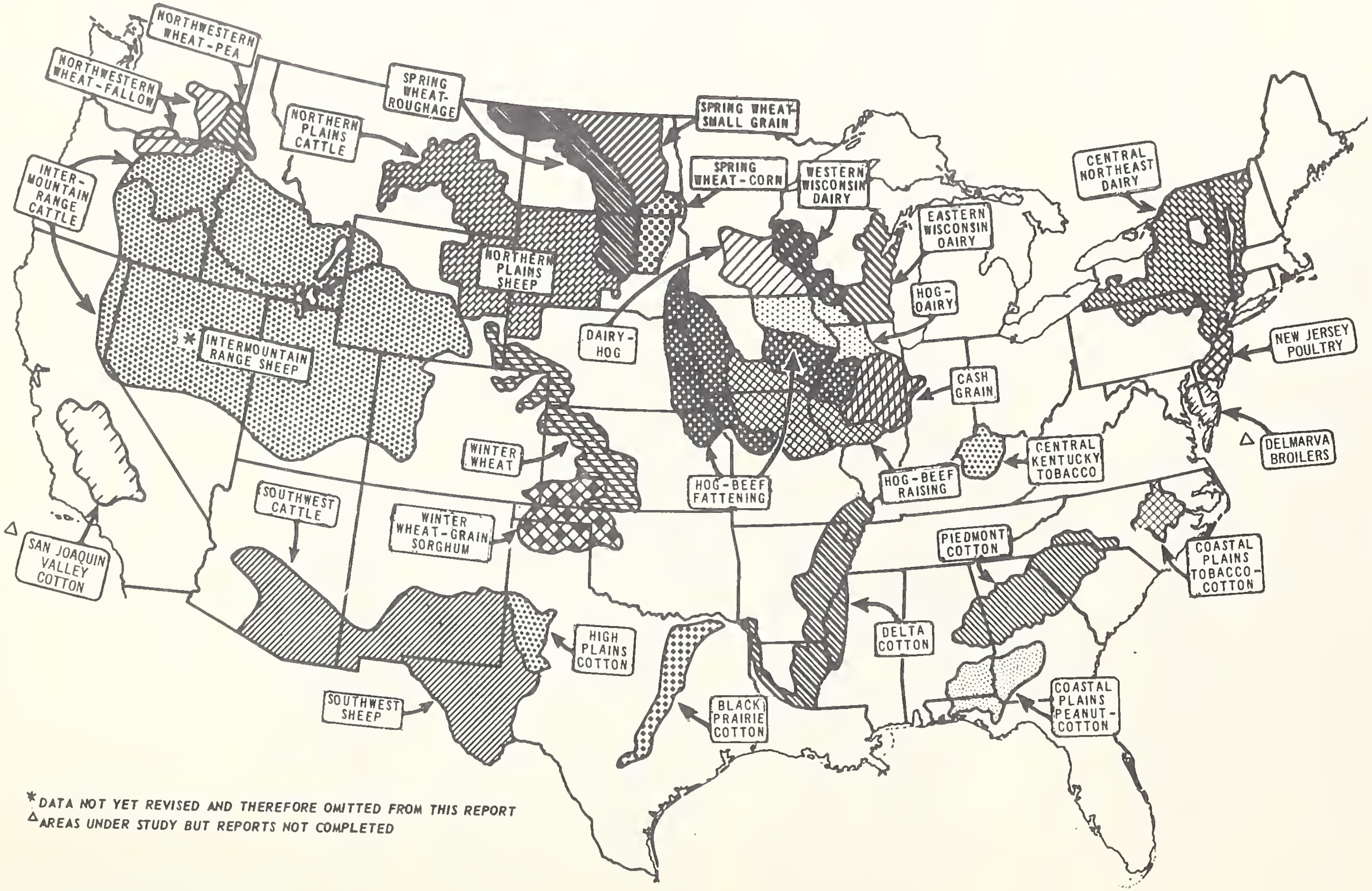
Total operating expenses on Intermountain cattle ranches probably will average about 4 percent higher in 1959 than a year earlier. Two factors chiefly responsible for this increase are: (1) A slight increase in prices paid for items used in production and, (2) a small increase in purchased inputs used. However, both net production and total inputs per ranch are expected to be slightly higher than a year ago. As a result, input per unit of production probably will average about the same as in 1958.

Operators of Intermountain cattle ranches continued to build up their breeding herds in 1959. However, the increase appears to be much less in 1959 than in 1958. This probably was due to the spotty range conditions in 1959 and apprehension about the future level of prices for feeder cattle.

Ranges in the area, particularly the southwestern portion, were not as good in 1959 as a year earlier and livestock came off the ranges in poorer condition than in 1958. Hay production in 1959 on these ranches probably will prove to be the lowest since 1955. Because of the reduced crop production, net ranch production in 1959 probably will average only slightly higher than in 1958, despite a 7-percent increase in livestock production.

Prices received for cattle and related products sold on these ranches are expected to average about 5 percent higher in 1959 compared with 1958. The slight increase in production, coupled with these higher prices, probably will result in an increase of about 7 percent in gross income. Net ranch income is expected to be around 9 percent higher than a year ago.

LOCATION OF TYPES OF FARMS STUDIED



*DATA NOT YET REVISED AND THEREFORE OMITTED FROM THIS REPORT
△AREAS UNDER STUDY BUT REPORTS NOT COMPLETED

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